

Technical Report

December 2002

**National Parks as Economic Development:
An Exploratory Note**

Prepared by

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1. Introduction

Not everyone is enthusiastic when a proposal for a new national park or monument is announced. EDRP works throughout the State of Arizona and, not surprisingly, we frequently find ourselves in a community located near a proposed wilderness area or national park-type area. Further, more often than not we encounter locals who are strongly opposed to the proposed designation. Sometimes the objection is based on the assumption that the area will become off-limits for local users such as off-road vehicle enthusiasts. But there is almost always a second argument this one says that the area will be locked up and taken out of productive use and as a result, the local economy will certainly suffer.

Our purpose in this report is to explore the new national park theme and identify at least a few key issues. Further, we will explore apparent economic development opportunities and will offer some very tentative conclusions and recommendations. As indicated by the title of this report, we are preparing an exploratory note, not a scientifically supported policy paper. At this point, we are more concerned with informing a research agenda that might lead to the development of a regional comprehensive plan and marketing strategy rather than with making policy pronouncements.

Background. Supporters of the proposed Sonoran Desert National Park issued a series of press releases during the years 1999-2000 which drew the public's attention to this ambitious proposal. Specifically, proponents of a Sonoran Desert National Park would like to expand the 330,688-acre Organ Pipe Cactus National Monument¹ to include the

¹The acreage total for Organ Pipe National Monument can be found at the National Park Service Website at <http://www.nps.gov/orpi>. Cabeza Prieta's acreage can be found at the US Fish and Wildlife service website at <http://realty.fws.gov/table10.html>

860,041-acre Cabeza Prieta National Wildlife Refuge¹ and re-designate it as the Sonoran Desert National Park and as part of a Sonoran Desert International Peace Park , which would include northern Mexico's Pinacate Biosphere Reserve² and Upper Gulf Biosphere Reserve. This international peace park would be designated by declarations of the Mexican and U.S. Congresses and each country would retain sovereignty over its own land. This sister park arrangement would expand tourism marketing opportunities for both countries and bolster the two nation vacation concept encouraged by the Arizona Office of Tourism and Sonora's Secretario de Fomento al Turismo. Supporters of a Sonoran Desert National Park would then like to see a second stage in the evolution of the park to include the 1.7 million-acre Goldwater Range³ and what is now the 496,337-acre Sonoran Desert National Monument³. Within these plans, the Goldwater Range and the Sonoran Desert National Monument would be considered National Preserves, a National Park Service land management category by which Congress can allow continued military training and sport hunting.

Whereas we have no real information about the extent of public support, we do know that there are at least substantial pockets of opposition in the communities which surround the proposed national park. Inasmuch as many of the critics of the proposed national park expressed concern about perceived negative economic implications associated with locking up areas previously open for mining, military exercises, and back country recreation, the University of Arizona's Economic Development Research Program saw an opportunity for an investigation. The fact that many of the

²More information on northern Sonora's Pinacate Biosphere Reserve can be found at <http://www.puerto-penasco.com/pinacate.html>

³The acreage for the Barry Goldwater Range can be found on the Luke Air Base website at <http://www.luke.af.mil/rmo/envirom.htm>. The acreage for the Sonoran Desert National Monument can be found at the Arizona BLM website at http://www.az.blm.gov/sonoran/sondes_main.htm

communities in the shadow of the proposed national park are fairly isolated from the main population centers of Arizona and Southern California and that they sometimes have fragile and lagging economies makes the investigation even more timely and appropriate.

Scope. Our scope of work started with a general concept, but evolved to feature six specific tasks.

1. The general concept is straightforward what are the economic benefits of a new national park (e.g. - growth of tourist-serving businesses, increased demand for goods and services by the National Park and its employees), and what are the opportunity costs associated with this jurisdictional option (e.g. - closure to off road vehicle users, mining interests, and the military)?
2. What communities are most likely to experience the direct impacts of a new Sonoran Desert National Park? What are the real or perceived disbenefits of a new national park?
3. What is the infrastructure base in the communities where direct impact might be the greatest? What is the current or baseline status of tourist-serving businesses?
4. What role does the National Park Service⁴ play as a business with export-type employment and as an investor with forward and backward linkages within the local region?
5. What is the gateway city concept and how does it apply to the case at hand?
6. And finally, what tentative and preliminary conclusions might be reached? (And implicitly, could these tentative and preliminary conclusions lead to testable hypotheses for more rigorous and definitive subsequent research studies?)

⁴The U.S. Department of Interior's National Park Service administers units with a variety of titles. We will not distinguish between national parks, monuments, preserves, historic sites, historical parks, memorials, etc. The various national park designations can be found at <http://www.nps.gov/legacy/nomenclature.html> In this paper, we use the term National Park to cover any or all of these designations.

The initial concept was initially developed by Lay Gibson and Bryant Evans of EDRP. The concept was expanded and sharpened through several conversations with Mr. Bill Broyles⁵, a thoughtful environmentalist and champion of the proposed Sonoran Desert National Park who serves on the proposed project's National Advisory Board.

Subsequently, the concept was introduced to a team of advanced undergraduates in the University's Regional Development degree program⁶. The student team was engaged in further discussions to sharpen the concept. They also conducted field surveys of community tourist-serving businesses, and were involved with discussions with the Superintendent of the Organ Pipe Cactus National Monument. Finally, EDRP's Gibson and Evans took over the process, added discussions of gateway communities, and prepared this draft report.

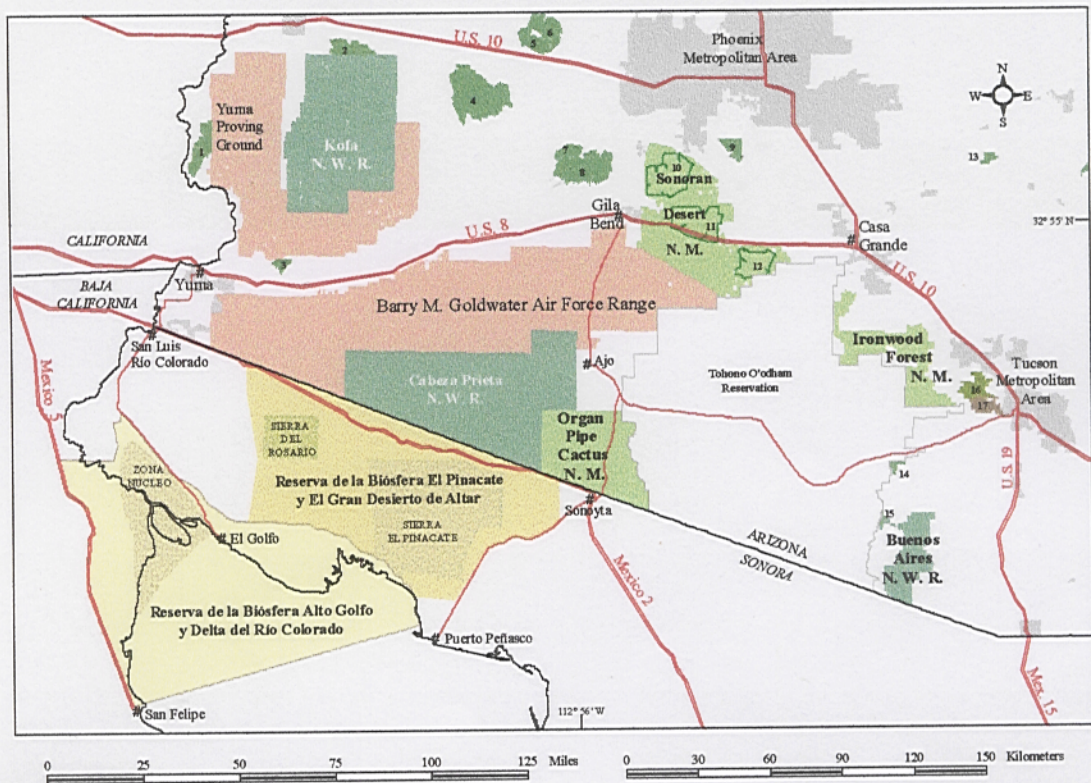
Field Work

Field work was undertaken during the spring and summer of 2001. During the spring, data were collected on tourist-serving facilities in the communities of Ajo and Gila Bend, Arizona (Figure 1). Following this initiative, team members traveled to Organ Pipe Cactus National Monument and met with Superintendent Wellman to discuss the Monument's role as an export-oriented employer and as a source of forward and backward economic linkages when goods and services are purchased locally.

⁵Bill Broyles is a coordinator for the Sonoran Desert National Park Friends and serves on the project's board.

⁶Regional Development is one of two undergraduate programs offered by the University of Arizona's Department of Geography and Regional Development. The student team consisted of Tavo Garcia, Andrew Grogan, Jason Laros, and Malia Vail, all of whom were enrolled in the department's workshop in Regional Development.

Figure 1. Map of Southwestern Arizona



Map Legend

Political Boundaries	Tohono O'odham Reservation	Interstate Highways
Urban Areas	Military Reservations	Secondary Highways
# Towns		
Reserva de la Biósfera El Pinacate y El Gran Desierto de Altar	U.S. National Monuments	U.S. Wilderness Areas
Zona Sierra del Rosario	16 Saguaro National Park (West)	1 Trigo Mountains Wilderness
Zona Sierra El Pinacate	17 Tucson Mountain Park	2 New Water Mountains Wilderness
Reserva de la Biósfera Alto Golfo y Delta del Río Colorado	U.S. National Wildlife Refuges	3 Muggins Mountains Wilderness
Zona Nucleo		4 Eagle Tail Mountains Wilderness
		5 Big Horn Mountains Wilderness
		6 Hummingbird Springs Wilderness
		7 Signal Mountain Wilderness
		8 Woolsey Peak Wilderness
		9 Sierra Estrella Wilderness
		10 North Maricopa Mountains Wilderness
		11 South Maricopa Mountains Wilderness
		12 Table Top Mountains Wilderness
		13 White Canyon Wilderness
		14 Baboquivari Peak Wilderness
		15 Coyote Mountains Wilderness

Digital coverages assembled from the following sources: Sonoran Desert N.M., Ironwood Forest N.M., and Wilderness Area boundaries from BLM-Phoenix (2001); Tohono O'odham, Buenos Aires and Cabeza Prieta N.W.R., Organ Pipe Cactus N.M., Saguaro N.P., and Tucson Mountain Park boundaries: Pima County Land Information System (2000); Other Arizona town data: Arizona Land Resource Information System (ALRIS); Biósfera boundaries adapted from polygons provided by The Nature Conservancy-Tucson (refer to Marshall et al. 2000); Major political boundaries and roads: ESRI/USGS and Mexico datasets; Gulf of California boundary and Colorado River digitized from a Landsat-7 image of October 1999; All coverages projected to UTM, datum NAD83, spheroid GRS1980; Image processing and map preparation by K. Maus, Arizona Remote Sensing Center, University of Arizona (July 2001).

Source: Kathryn Mauz, Office of Arid Lands Studies, University of Arizona

2. The General Concept, Some Assumptions, and A General Proposition

A new national park will bring substantial economic benefits to its local region. The magnitude of the benefits will depend on several things including:

- A. The park's management strategy regarding a host of considerations, including the location of visitor accommodations, grocery outlets, food and beverage outlets, gasoline service stations, souvenirs, etc. and the location of employee housing.
- B. The number of visitors attracted and the seasonality of visits.
- C. The extent to which local markets in communities proximate to the park respond to the market opportunities presented.

Management Strategy. The Grand Canyon National Park features a small city at the South Rim with gas stations, hotels, restaurants, schools, housing, supermarkets and a variety of other goods and services. These offerings are the result of high levels of demand by residents and visitors alike, isolation and lack of alternative sources for these goods and services, and management decisions made decades ago that were friendly to commercial developments in national parks. The Saguaro National Park offers an alternative model. With the exception of a couple of modest visitor centers and a few housing units, visitors and employees alike depend on surrounding communities in the Greater Tucson area for goods and services.

There is no real way of knowing whether the Sonoran Desert National Park will be established. Nor can we know what the management strategy will be. We can, however, speculate that the park would be largely wilderness or underdeveloped with modest facilities for landscape interpretation, picnicking and perhaps camping on the margins. Commercial development would, we think, be confined to private lands outside the park and to existing communities.

We base our speculation on three observations. First, it seems that the National Park Service increasingly favors out-of-park developments, probably because this policy enhances efforts to preserve natural landscapes and because it reduces the administrative costs of managing concessionaires. Additionally, Organ Pipe and Cabeza Prieta are largely congressionally designated wilderness areas, precluding development or expanded roadworks.⁷ Thus, we might suggest that because there are not substantial apparent differences between landscape features already reachable by paved roads and those in more-or-less wild status, nothing much would be gained by opening new areas to the automobile, i.e., the present road system allows visitors to see pretty much all they need to see.

Second, we expect visitor numbers to be substantial given the proximity of the proposed park to Interstate 8 and to State Highways 85 and 86. Further, the proposed park is an easy drive from the Phoenix, Tucson, and Yuma metropolitan areas. Winter will continue to be the preferred season for visitation, but metro proximity and interstate access will encourage visitation during the spring and fall shoulder seasons and even the summer low season. Similarly, if the proposed park expanded to include the Pinacate and Upper Gulf Biospheres as part of a binational peace park, some visitors would approach the American park from Highways 2 and 8 in Mexico.

Third, the three nearby metro centers can easily supply goods and services. More problematic is the case of smaller communities. To better understand what might be and to create a baseline data set for subsequent studies, EDRP conducted field studies to identify and describe tourist serving business in Ajo, Why, Lukeville, and Gila Bend. The results of our field study are described elsewhere in this report.

⁷Information on Cabeza Prieta and Organ Pipes wilderness area status can be found on several web-based resources, but directly on <http://www.nps.gov/orpi> and <http://southwest.fws.gov/refuges/arizona/cabeza.html>

Finally, a word about opportunity costs. If the establishment of the national park does not eliminate existing activities (e.g. - mining), or exclude activities that might otherwise take place, the shift to national park status will not carry opportunity costs. But if certain activities are excluded, we can speculate about potential impacts.⁸ A fair question involves foregone opportunities. Would the economic impacts of a national park outweigh the beneficial impacts of a few small mining operations? Probably. Would it outweigh the economic benefits of off-road recreational vehicles? Again, the answer is probably . On the other hand, if the national park designation means that a large copper mine and ore processing facility can not be created or that military use of the area must be discontinued, we will likely get a different answer to our question. Will the national park's economic returns be greater than the returns associated with either of the two activities just mentioned? Probably not.

In any case, a proposed national park will certainly have a beneficial impact on the tourist-serving activities in its local region. The national park designation is a high cachet label that is widely recognized by the traveling public and a virtual guarantee that the park will be featured in guidebooks and in road maps.

3. Impact Communities

Assuming the Sonoran Desert National Park is configured as proposed, and assuming that the recently established Sonoran Desert National Monument is folded into the proposed park, four communities are likely to benefit most (see Figure 2). Yuma is a large center with metropolitan status on the western edge of the proposed park. It

⁸With regards to mining claims, for example, the Sonoran Desert National Monument's official website (<http://www.az.blm.gov/sonoran/skbgqd.htm>) that ...the proclamation appropriates and withdraws the federal lands and interests in lands within the boundaries of the monument from entry, location, entry, and patent under the mining laws... and This withdrawal prevents the location of new mining claims under the 1872 Mining Law, and prevents the Secretary of the Interior from exercising discretion under the mineral leasing acts and related laws to lease or sell federal minerals within the boundaries of the monument.

offers a variety of fairly sophisticated goods and services including retail, commercial air, medical and housing and it has good road access to Mexico. This latter point is important if the proposed national park has a Mexican counterpart. Yuma is well positioned to serve both visitors and park staff.

Casa Grande is the other larger center with some potential as a national park service center. Whereas it is proximate to the Sonoran Desert National Monument and it enjoys easy access to Phoenix and all of the goods and services available in this enormous metropolitan center, Casa Grande itself does not measure up to Yuma in terms of either locally available goods and services or in terms of accessibility to the core region of the proposed park.

Two small centers that seem to be strategically positioned are Gila Bend and Ajo. Both have small populations and limited availability of retail, medical, housing and other goods. Neither community has commercial air service. But both communities have substantial infrastructure, strategic locations, and potentials for growth, and both would benefit greatly by the establishment of a national park. Ajo is probably closer to the proposed park's core and it is closer to Mexico than Gila Bend. Gila Bend, on the other hand, enjoys a location adjacent to Interstate 8 and it has easy and quick access to the Phoenix metropolitan region. Gila Bend has vast areas of land suitable for eventual urban development, and this land is mostly in the hands of land investors at this time. Gila Bend's status as a true Phoenix metropolitan fringe area is realistically within the planning horizon for the community.

Whereas there are other centers that might provide limited goods and services for travelers (Lukeville, Why, and Organ Pipe Cactus National Monument are three that come to mind), the four just mentioned probably have the best overall potential. In this exploratory analysis we will have little more to say about Casa Grande and Yuma. These are large and relatively complex centers that could easily accommodate increased

demands for goods and services associated with the development of the proposed park.

Ajo and Gila Bend, on the other hand, are smaller and less developed. We have focused our attention on these two places; the survey data described in the next section of this report deal with these communities and three (including Organ Pipe Cactus National Monument) which are even smaller. The smaller places will be very sensitive to growth in demand if the park is established. They will also need to be the most proactive to assure that they capture the economic potentials and avoid the negative impacts of rapid growth. And these are the places that in the long term can make the best use of baseline data on tourist service capacity.

4. Tourist-Serving Capacity

As noted above, places such as Yuma and Casa Grande are probably large enough to absorb increase in demand for goods and services from a national park without much effort. Further, as levels of demand by tourists and park service managers grow, it is certain that offerings would quickly grow to accommodate additional demand. This is much less the case in smaller centers such as Ajo and Gila Bend. These places will be keenly aware of increased levels of demand. And, the business of adding capacity will require careful planning and proactive management. For these reasons, we conducted a survey of private-sector goods and services available to serve tourists. The questionnaire is found in Appendix A. These data let us know what is there, but perhaps more importantly, we have established a quantitative baseline against which future growth can be measured.

Previous research suggests that a handful of establishments account for much of the absolute and relative touristic demands for goods and services in cities and towns⁹.

These business types are:

- " RV Parks,
- " amusement and recreation services,
- " eating places,
- " motels,
- " real estate offices,
- " grocery stores, and
- " gift shops.

These are certainly not the only business types serving tourists. For example, tourists regularly make purchases at auto parts stores, drug stores, and camera shops. But in general, in many communities, the seven business types mentioned will be the most tourist dependent. This is why they were surveyed for the present study.

Employment is an important measure of activity in a community. To standardize this measure, we converted all employment to a full-time equivalent (FTE) value, which assumes year-round employment and a 40 hour week. Please note that owners, salaried managers and even family members are treated as employees. In short, our FTE employment figure is really a best estimate of the economically active population which works in each community in one of the tourist serving sectors.

⁹Types of business establishments are discussed in detail in Lay James Gibson's 1993 book chapter entitled *The Potential for Tourism Development in Nonmetropolitan Areas*, found in *Economic Adaptation: Alternatives for Nonmetropolitan Areas*, edited by David Barkley.

The community with the largest number of tourist service establishments is Ajo with 27 establishments. (Table 1). The prize for most employees, however, goes to Gila Bend with 221.38 FTE employees in tourist-serving establishments. The two most tourist-dependent communities are Organ Pipe National Monument, where 100% of all employment is devoted to serving non-local (export) customers and Lukeville, which has a tourism dependency ratio of 99.1%.

Table 1. Export FTE Data by Community

Community	Gross FTE Total	Export FTE Total	Tourism Dependency Ratio
Ajo (27)	140.04	68.74	49.1%
Gila Bend (21)	221.38	130.64	59.0%
Lukeville (3)	19.50	19.32	99.1%
Why (3)	11.46	7.71	67.3%
Organ Pipe (1)	35.15	35.15	100.0%
Total (55)	427.53	261.56	61.2%

Source: EDRP, University of Arizona Field Survey, Spring 2001.

Note: Export Full-Time Equivalent (FTE) employment is divided by total or gross FTE employment.

In absolute terms, restaurants are the driving sector for serving tourists (Table 2). Almost one-half (120.65) of the 261.56 tourist service FTE in the five communities were in restaurants. In relative terms, restaurants are less conspicuously tourism dominated; the tourism dependency ratio is only 53.8%. The largest tourism dependency ratios are in RV parks and amusement (The National Park Service!), with motels and real estate making a strong showing. In absolute terms, the driving tourist sectors are restaurants, motels, and the NPS.

We also asked two perception questions when conducting our field survey. The first asked respondents whether they thought that tourism had increased in importance in their community during the past five years. The second asked about their view on tourism's prospects. In terms of the past five years, the picture is mixed. In none of the four communities did a majority of the respondents see a clear increase. Indeed, whereas there were only five respondents in Lukeville and Why combined, the majority saw tourism declining or at best, staying the same (Table 3). There was much more optimism when speculating about the future (Table 4). Ajo and Lukeville respondents were especially bullish, but even Gila Bend respondents tended toward anticipating an increase in activity or at least the status quo. One might guess that the announcement of the establishment of a new national park would make local merchants even more bullish on the future of tourism.

Table 2. Export FTE Data by Sector.

Sector (Number of Establishments)	Gross FTE Total	Export FTE Total	Tourism Dependency Ratio
RV Parks (6)	14.96	14.96	100.0%
Amusement (1)	35.15	35.15	100.0%
Motels (11)	61.03	51.16	83.8%
Real Estate (6)	18.65	14.95	80.2%
Restaurants (21)	224.44	120.65	53.8%
Gifts (4)	6.70	3.39	50.6%
Grocery (6)	66.60	21.30	32.0%
Total (55)	427.53	261.56	61.2%

Source: EDRP, University of Arizona Field Survey, Spring 2001.

Note: The EDRP survey was of tourist-serving establishments in Ajo, Gila Bend, Organ Pipe Cactus National Monument, Why, and Lukeville, Arizona.

Table 3. Perception Importance of Tourism Over the Past Five Years.

Community	Increase	Decrease	Same	Total
Ajo (25)	48.0%	32.0%	20.0%	100.0%
Gila Bend (20)	45.0%	25.0%	30.0%	100.0%
Lukeville (3)	33.3%	33.3%	33.3%	100.0%
Why (2)	0.0%	50.0%	50.0%	100.0%
Total (50)	44.0%	30.0%	26.0%	100.0%

Source: EDRP, University of Arizona Field Survey, Spring 2002.

Note: The total number of establishments here reflect the total number who responded to the EDRP survey, and represent the number of tourist-serving establishments in seven sectors.

Table 4. Perception Role of Tourism in the Next Five Years.

Community	Increase	Decrease	Same	Total
Ajo (25)	72.0%	16.0%	12.0%	100.0%
Gila Bend (20)	55.0%	20.0%	25.0%	100.0%
Lukeville (3)	67.6%	0.0%	33.3%	100.0%
Why (2)	50.0%	50.0%	0.0%	100.0%
Total (50)	64.0%	18.0%	18.0%	100.0%

Source: EDRP, University of Arizona Field Survey, Spring 2001.

Note: The total number of establishments here reflect the total number who responded to the EDRP survey and represent tourist-serving establishments in seven sectors.

5. A National Park Business

In the minds of many people, real jobs are only found in the private sector. But from an economic development standpoint, nothing could be farther from the truth. Indeed, in most smaller communities, city government, county government, and local schools are among the largest and best paying employers. Based on limited data from a southwest Arizona national monument, we might guess that a new Sonoran Desert National Park could be a major force in almost any local economy. We base this observation on data describing the budget for the Organ Pipe Cactus National Monument.

The Monument's budget for the 2001 fiscal year was \$2,108,000. It is difficult to imagine too many other employers in the Ajo-Why area with a budget of this magnitude. Personnel costs account for 85% of this figure, and much of the dollar value of payments to workers will find its way into the local economy for housing and other goods and services. The remaining 15% is mostly in vehicle costs, and these expenditures may also go into the local economy.

Organ Pipe National Cactus Monument also averages some \$500,000 per year for special projects that potentially could be completed by local contractors. The following is an approximation of three or four years worth of special projects during the late 1990's and early 2000's:

" New Restroom Facilities	\$350,000
" Water Supply Improvements	\$125,000
" Parking Lot Development	\$165,000
" Road Improvements	\$1,600,000
" Water Line	\$370,000

Again, it is worth noting that these projects could be done by qualified local contractors, who employ residents of the local region. When the general operating budget and special project expenditures are combined, the annual expenditures figure is approximately \$3,000,000, which is substantial by small town standards.

It is often asserted that designation as a National Park Service Unit enhances the market appeal of an area. Whereas we have no hard data to back this assertion, we will accept it as an operating assumption. We will assume, in other words, that national parks (including monuments and other specific designations) are a high-cachet branded product that successfully generate national publicity for an area as unpaid advertising. Similarly, we have no real evidence regarding the portion of recreational visitation in an area with a national park that is specifically attributable to the presence of the park. Certainly, some of the recreational visitors in almost any area with a park would be there anyway.

In the case of Organ Pipe Cactus National Monument, it seems reasonable to guess that a good many visitors would not bother visiting if the National Park Service designation did not exist. The designation per se is a sort of seal of approval that tells the public that the area is distinctive in its natural beauty, that a visit will be enjoyable and informative, and that the infrastructure will be of substantial quality. Given the generally hospitable environment of Organ Pipe, we might assume that most visitors, e.g. 90%, would not come without the current designation and access infrastructure. This estimate might be high in the winter, when visitors are fairly abundant, but might be lower in the summer, when the appeal of the low desert is less.

Visitation data for the 2000 year are given in Table 5. The pattern is straightforward: The winter quarter (January-March) is exceptional in both absolute and relative terms. The hot summer months are understandably slow. The recreational counts represent visitors to Organ Pipe per se. The non-recreational travelers describe other travelers, including the substantial cohort that passes through the Monument as they travel from Phoenix to Rocky Point, Mexico.

Table 5. Organ Pipe Cactus National Monument Visitation Figures - 2000/01

Month	Recreational Visits		Non Recreational Visits		Total	
	2000	2001	2000	2001	2000	2001
January	37,080	47,777	82,097	90,043	119,177	137,820
February	46,385	54,158	77,945	93,583	124,330	147,741
March	38,587	63,911	104,686	119,159	143,273	183,070
April	24,075	34,147	116,115	132,548	140,190	166,695
May	16,848	16,054	123,867	110,221	140,715	126,275
June	11,191	16,227	92,765	106,106	103,956	122,333
July	11,560	12,723	94,828	81,675	106,388	94,398
August	11,971	12,802	73,122	91,103	85,093	103,905
September	11,501	11,753	84,876	75,935	96,377	87,688
October	15,353	14,253	86,175	76,320	101,528	90,573
November	16,156	19,330	93,967	83,978	110,123	103,308
December	17,599	25,855	87,472	91,816	105,071	117,671
Total	258,306	328,990	1,117,915	1,152,487	1,376,221	1,481,477

Source: U.S. Department of Interior, National Park Service, Office of the Organ Pipe Superintendent

6. Gateway Communities

In recent years, there has been a growing interest in gateway cities, i.e., in communities which are positioned to benefit from their proximity to a national park or other attraction of this sort. Gateway cities are encouraged by both push and pull factors. Pulling development to gateway communities involves the substantial infrastructure in place - infrastructure such as water and sewer and retail establishments to serve visitors and infrastructure such as housing, schools, and other capabilities that are demanded by the households that work in tourist-serving industries. Push factors may be as straightforward as a management philosophy that supports the idea that human use of parks and monuments should be kept to an absolute minimum to budget limitations that do not allow for capital improvements within the park or monument area. In Arizona (and probably elsewhere) there also seems to be emerging defensive reasons to limit access points and other in-park developments. A recent editorial in the Arizona Republic talked about the need to manage wilderness-type parks to deal with smugglers, drug gangs, and target shooters. A key element in management plans to address these concerns is reducing access points; this concentrates the flow of visits along just one (or a few) routes which can in turn focus demands for goods and services on a finite number of gateway communities.

Some studies using this concept are narrow. Corkran (1996) uses the gateway community concept in his study of a proposed mine and its potential impacts on quality of life in a gateway community near Yellowstone National Park, whereas Johnson and Rasker (1995) focus on businesses in gateway communities. Perhaps the most comprehensive discussion on the gateway community concept is found in a stimulating book by Howe, McMahon, and Propst (1997) titled *Balancing Nature and Commerce in Gateway Communities*. More recently, an article in Regions (Newsletter of the National Association of Regional Councils) provided both the rationale for gateway communities

as seen from the perspective of a Department of Interior official and also the downside to communities that see economic losses from catastrophic or near-catastrophic events such as forest fires. Whereas none of these sources provide an exact model for evaluating the situation at hand, they lead to the conclusion that the concept has tremendous potential value for better appreciating local opportunities.

Sometimes the gateway community is adjacent to the park, e.g., Tusayan at the southern edge of the Grand Canyon National Park. Occasionally, they are further away, e.g., Williams and Flagstaff are still gateways to the Grand Canyon even though they are 59 and 81 miles respectively from the South Rim. But in any case, all of these communities benefit from expenditures by the park's management for goods and services, and by the employees of the park and its concessionaires. The obvious economic benefits to local economies have been enhanced in recent years by decisions to keep development within park boundaries to a minimum, and to shift the responsibility for providing goods and services to suppliers in gateway communities or elsewhere beyond the park's boundaries. We speculate that this will certainly be the case with the proposed Sonoran Desert National Park.

Ajo and Gila Bend would be natural gateways for the proposed Sonoran Desert National Park, but they also serve as gateways to Mexico. Tourists may begin their trips in southwest Arizona and utilize the tourist-serving enterprises in the area as a jumping off point for destinations in northern Sonora, thus benefitting from the proximity to the United States neighbor to the south.

7. Tentative and Preliminary Conclusions and Recommendations

As noted in the title, this report is an exploratory note - not a definitive statement based on abundant data and rigorous analysis. A more thorough analysis is clearly needed and

it should start with a complete description of how the park (or monument) will be developed, staffed, and managed. And a complete study of visitor numbers and needs is necessary, including estimated demands for goods and services in surrounding communities and the current unused capacity for tourist-serving goods in the gateway communities. Given the isolated location of these communities, we can expect that they will capture substantial amounts of any new demand by visitors. Having said this, we will close this paper with a series of clearly speculative, tentative, and preliminary assumptions, assertions, conclusions, and recommendations.

First, the economic benefits of a national park can be substantial. Further, these benefits seem to be all-too-frequently ignored or undervalued. If the establishment of a national park were to force the closure of a large, high wage employer, the wisdom of creating the park could certainly be challenged on economic grounds. The same argument could be raised if significant development options were eliminated. But it is also possible in purely economic terms that a national park is the best use inasmuch as it yields greater economic benefits to the region than realistically achievable alternatives.

Second, both Yuma and Casa Grande are likely to benefit from a new national park in southwestern Arizona. Because these communities are fairly large and sophisticated, market forces can be counted on to accommodate increased demands for goods and services associated with establishment of a new park. The relative impacts, however, will be most pronounced in smaller and less-well-developed communities such as Ajo and Gila Bend. Proactive planning initiatives are essential to assure that communities such as these evolve in a timely and efficient way to get maximum benefit and to avoid negative outcomes from poorly managed physical growth.

Third, the National Park Service is, effectively, an export-oriented industry with considerable economic clout. The start-up costs of a new national park would be minimal for the gateway communities located along its periphery, and the communities which position themselves to take full advantage of a national park and the Park Service itself can benefit substantially.

Lastly, gateway cities can play an important role in the preservation of natural landscapes by accommodating demands for goods and services by the national park, its employees, and its visitors. The economic rewards for this good deed can be substantial. However, gateway cities don't just happen. They are the result of thoughtful strategic planning and management decisions by informed community leaders.

Appendix A
Southwestern Arizona Tourism Questionnaire

Community_____ **Date**_____ **Interviewer**_____

Hello! I m _____ and I am a researcher from the University of Arizona. We re working on a study here in the region that we hope will lend insights as to the area s economic structure with a special emphasis on its tourist serving potentials and capacities. May I have a few minutes to ask you some questions?

A. General

1. What is the formal name of this establishment? _____

2. What is the street address? _____

PO Box _____ Community _____ Zip _____ Phone _____

-

3. Who is the principal local official and what is his/her title?

Name _____ Title _____

4. What is the principal function of this establishment (primary product or service)?

SIC Code _____ NAICS Code _____

B. Work Force Description

5. Including yourself, members of your family, and those on salary, how many employees do you have? (Average for the past 12 months)? _____

6. How many are:

- a. Year-round full-time male employees?_____
- b. Year-round full-time female employees?_____
- c. Year-round part-time male employees?_____
- ____d. Year-round part-time female employees?_____
- e. Seasonal male employees?_____
- f. Seasonal female employees?_____

7. How many of these year-round full-time and part-time employees live in:

- | | FT | PT |
|--|-------|-------|
| a. The community (includes area within 10 miles of town) | _____ | _____ |
| b. Outside the region | _____ | _____ |

8. On the average, how many hours per week do these part-time employees work?

(Note if total or per employee)_____

9. Again, approximately how many seasonal employees did you hire during the last 12 months?_____

10. How many of these seasonal employees live in:

- a. The community (includes area with 10 miles of town) _____
- b. Outside the region_____

11. How many weeks (annually) did you employ seasonal workers?_____

C. Economic Base

- 12.** Approximately what percentage of your total sales are made to people who live in your community?_____
- 13.** What percentage of your total sales are made to people who reside outside your community?_____

D. Tourism

- 14.** Do you think the importance of tourism in your community has increased, decrease, or remained the same over the past five years?
Increased_____ Decreased_____ Same_____
- 15.** Do you think your community's role as a tourist center will increase, decrease, or remain the same in the next five years?
Increased_____ Decreased_____ Same_____

This survey was developed at The University of Arizona's Economic Development Research Program. If you have any questions, please feel free to call Dr. Lay Gibson, Director, at (520)621-7899 or Bryant Evans, Research Specialist, at (520)621-8579.

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